1/20

SEQUENCE LISTING

<110> GeneSense Technologies Inc. et al.	
<120> Antisense Oligonucleotides Directed To Ribonucleotide Reductase R2 and Uses Thereof in Combination Therapies for the Treatment of Cancer	
<130> 683-134pct	
<140> n/a	
<141> 2005-01-12	
<150> US60/535,496	
<151> 2004-01-12	
·	
<150> US60/602,817	
<151> 2004-08-18	
<160> 105	
·	
<170> FastSEQ for Windows Version 4.0	
<210> 1	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Antisense oligonucleotide complementary to human	
ribonucleotide reductase R2 mRNA	
<400> 1	
ggctaaatcg ctccaccaag	20
- 9J	
<210> 2	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Control antisense oligonucleotide	•
<400> 2	20
ggetaaactc gtecaccaag	
<210> 3	
<211> 20	
<2112 DNA	
<213> Artificial Sequence	

```
<220>
<223> Control oligonucleotide
<400> 3
                                                                   20
acgcactcag ctagtgacac
<210> 4
<211> 20
<212> DNA
<213> Artificial Sequence ·
<220>
<223> AS-II-6-20 antisense oligonucleotide complementary
      to human ribonucleotide reductase R2 mRNA
<400> 4
                                                                   20
accettecea ttggctgcgc
<210> 5
<211>.20
<212> DNA
<213> Artificial Sequence
<223> AS-II-13-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
       mRNA
 <400> 5
                                                                    20
gcctccgacc cttcccattg
 <210> 6
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> AS-II-14-20 antisense oligonucleotides
       complementary to human ribonucleotide reductase R2
       mRNA
 <400> б
                                                                    20
 tgcctccgac ccttcccatt
 <210> 7
 <211> 18
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> AS-II-16-18 antisense oligonucleotides
```

complementary to human ribonucleotide reductase R2 mRNA <400> 7 18 tgcctccgac ccttccca <210> 8 <211> 20 <212> DNA <213 > Artificial Sequence <223> Partially Phosphorothioated AS-II-75-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 8 20 egegegetee eggeeettee <210> 9 <211> 20 <212> DNA <213> Artificial Sequence <223> AS-II-75-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 9 20 egegegetee eggeeettee <210> 10 <211> 14 <212> DNA <213> Artificial Sequence <220> <223> AS-II-79-14 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 10 14 cgcgctcccg gccc <210> 11 <211> 20 <212> DNA <213> Artificial Sequence

<223> AS-II-109-20 antisense oligonucleotides

complementary to human ribonucleotide reductase R2 mRNA <400> 11 20 ccctcactc cagcagcctt <210> 12 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-110-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 12 20 accecteact ccagcageet <210> 13 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-114-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 13 20 ggcgaccct cactccagca <210> 14 <211> 12 <212> DNA <213> Artificial Sequence <223> AS-II-127-12 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 14 12 gcacgggcga cc <210> 15 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-130-20 antisense oligonucleotides

complementary to human ribonucleotide reductase R2 mRNA <400> 15 20 tgggacaggg tgcacgggcg <210> 16 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-134-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 16 20 gacggctggg acagggtgca <210> 17 <211> 20 <212> DNA <213> Artificial Sequence <223> AS-II-151-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 17 20 gagcagccag gacaggacgg <210> 18 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-163-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 18 20 gcgaagcaga gcgagcagcc <210> 19 <211> 20 <212> DNA <213> Artificial Sequence

<223> AS-II-166-20 antisense oligonucleotides

	complementary to human ribonucleotide reductase R2 mRNA	
<400> gcagcg	19 gaagc agagcgagca	20
<210><211><212><212><213>	20	
<220> <223>	AS-II-185-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA	
<400> gggaga	20 agcat agtggaggcg	20
<210><211><211><212><213>	20	
<220> <223>	AS-II-189-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA	
<400> cggag	21 ggaga gcatagtgga	20
<210><211><212><213>	20	
<220> <223>	AS-II-201-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA	
<400> gcgag	22 Ieggga caeggaggga	20
<210><211><211><212><213>	20	
<220> <223>	AS-II-217-20 antisense oligonucleotides	

	complementary to human rimRNA	ponucieotide reductase	R2
<400> cgggtc	23 egtg atgggegega		20
<210> <211> <212>	20 DNA		·
<213>	Artificial Sequence		
<220>			
	AS-II-225-20 antisense of complementary to human ramenna	ilgonucleotides ibonucleotide reductase	R2
<400> agctgo	24 stgcg ggtccgtgat		20
<210>	25		•
<211>	14		
<212>			
<213>	Artificial Sequence		
<220>	_	-1 113	
<223>	AS-II-253-14 antisense o complementary to human r mRNA	ligonucieotides ibonucleotide reductase	R2
<400>	25		
	tcagc ggcg		14
<210>	26		
<211>			
<212>		•	
<213>	Artificial Sequence		•
<220>	•	,	
<223>	AS-II-280-20 antisense o	ligonucleotides	
	complementary to human r	ibouncieotide reducidse	
<400>	26 .		20
cggcg	gegtg tteteettgt		20
<210>	· 27		
<211>			
<212>	DNA		•
<213>	Artificial Sequence		
<220>	•		
<223>	AS-II-288-12 antisense o	oligonucleotides	

```
complementary to human ribonucleotide reductase R2
      mRNA
<400> 27
                                                                   12
cggcggcgtg tt
<210> 28
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-323-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 28
                                                                    20
tcctcgcggt cttgctggcc
<210> 29
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-344-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 29
                                                                    20
ccgtgggctc ctggaagatc
<210> 30
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-362-20 antisense oligonucleotides
       complementary to human ribonucleotide reductase R2
       mRNA
 <400> 30
                                                                    20
 ctgctttagt tttcggctcc
 <210> 31
 <211> 17
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> AS-II-391-17 antisense oligonucleotides
```

complementary to human ribonucleotide reductase R2 mRNA <400> 31 17 eggetcatec tecaege <210> 32 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-404-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 <400> 32 20 ggttttctct cagcagcggc <210> 33 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-412-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 33 20 gcggcggggg ttttctctca <210> 34 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-414-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 34 20 aageggeggg ggttttctct <210> 35 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-425-20 antisense oligonucleotides

	complementary to human mRNA	ribonucleotide	reductase	R2
<400> ggaaga	35 itgac aaagcggcgg			20
<210><211><211><212><213>	20			
<220> <223>	AS-II-439-20 antisense complementary to human mRNA	oligonucleotide ribonucleotide	es reductase	R2
<400> atggta	36 actcg atggggaaga			. 20
<210><211><212><213>	20	·		
<220> <223>	AS-II-472-20 antisense complementary to human mRNA	oligonucleotide ribonucleotide	es reductase	R2
<400> agccto	37 etgee ttettataca			20
<210><211><212><213>	20			
<220> <223>	AS-II-494-20 antisense complementary to human mRNA	oligonucleotide ribonucleotide	es reductase	R2
<400>	38 tegge ggtecaaaag		·	20
<210><211><211><212><213>	16			
<220> <223>	AS-II-496-16 antisense	oligonucleotid	es	

complementary to human ribonucleotide reductase R2 <400> 39 16 tecteggegg tecaaa <210> 40 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-549-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 40 20 tatctctcct cgggtttcag <210> 41 <211> 20 <212> DNA <213> Artificial Sequence <223> AS-II-579-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 41 20 gcaaagaaag ccagaacatg <210> 42 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-619-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 42 20 togotocaco aagttttcat <210> 43 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-634-20 antisense oligonucleotides

```
complementary to human ribonucleotide reductase R2
      mRNA
<400> 43
                                                                 . 20
aacttcttgg ctaaatcgct
<210> 44
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-667-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 44
                                                                   20
gaagccatag aaacagcggg
<210> 45
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-784-20 antisense oligonucleotides
       complementary to human ribonucleotide reductase R2
       mRNA
 <400> 45
                                                                    20
 gacacaaggc atcgtttcaa
 <210> 46
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> AS-II-798-20 antisense oligonucleotides
       complementary to human ribonucleotide reductase R2
       mRNA
 <400> 46
                                                                    20
 totgoottot tottgacaca
 <210> 47
 <211> 20
 <212> DNA
  <213> Artificial Sequence
 <223> AS-II-816-20 antisense oligonucleotides
```

```
complementary to human ribonucleotide reductase R2
      mRNA
<400> 47
                                                                   20
atccagcgca aggcccagtc
<210> 48
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-861-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 48
                                                                    20
gcaaaggcta caacacgttc
<210> 49
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-890-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
<400> 49
                                                                    20
aaccggaaaa gaaaatgcct
<210> 50
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-909-20 antisense oligonucleotides
       complementary to human ribonucleotide reductase R2
       mRNA
<400> 50
                                                                    20
ggcatcagtc ctcgtttctt
 <210> 51
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <223> AS-II-933-20 antisense oligonucleotides
```

	complementary to human ribonucleotide reductase R2 mRNA	-
<400>	51 eagte etegtttett	20
<210><211><211>	52 20	
<220>		
<223>	AS-II-981-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA	
<400> tgtaaa	52 acct catctctgct	20
<210><211><211><212><213>	20	
<220>		
<223>	AS-II-1001-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA	
<400> tcagg	53 caagc aaaatcacag	20
<210><211><211><212><213>	20	
<220>		
<223>	AS-II-1006-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA	
<400>		20
gaaca	tcagg caagcaaaat	
<210>		
<211>		
<212>	DNA Artificial Sequence	
<413>	Wiltigrar pedagage	
<220>		
<223>	AS-II-1023-20 antisense oligonucleotides	

```
complementary to human ribonucleotide reductase R2
       mRNA
 <400> 55
                                                                   20
 ttgtgtacca ggtgtttgaa
 <210> 56
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <223> AS-II-1040-20 antispnse oligonucleotides
       complementary to human ribonucleotide reductase R2
 <400> 56
                                                                    20
 ctctctcctc cgatggtttg
 <210> 57
 <211> 20
 <212> DNA
 <213> Artificial Sequence
                 . . .
 <223> AS-II-1048-20 antisense oligonucleotides
       complementary to human ribonucleotide reductase R2
       mRNA
 <400> 57
                                                                    20
 ttatattact ctctcctccg
 <210> 58
· <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> AS-II-1144-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
 <400> 58
                                                                    20
 gtattgette attagagtge
 <210> 59
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> AS-II-1182-20 antisense oligonucleotides
```

	complementary to human ribonucleotide reductase R2 mRNA	•
<400>	59 :tcca gcataagtot	20
cccago	· · · · · · · · · · · · · · · · · · ·	
<210>	60	
<211>		
<212>	DNA	
<213>	Artificial Sequence	
<220>	·	
<223>	AS-II-1197-20 antisense oligonucleotides	
	complementary to human ribonucleotide reductase R2 mRNA	
<400>	60	
	ettge taaaacccag	20
<210>	61	
<211>		
<212>		
	Artificial Sequence	
	•	
<220>		
<223>	AS-II-1217-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA	
<400>	61	
	gggtt etetaetetg	20
	-	
<210>	62	
<211>	20 .	
<212>		
<213>	Artificial Sequence	
<220>		
<223>	AS-II-1224-20 antisense oligonucleotides	
	complementary to human ribonucleotide reductase R2 mRNA	
<400>	62	
ațaaa	gtcaa atgggttctc	20
<210>	·	
<211>		
<212>		
<213>	Artificial Sequence	٠
<220>		
	AS-II-1254-20 antisense oligonucleotides	

```
complementary to human ribonucleotide reductase R2
     mRNA
<4.00> 63
                                                                    20
ttagtctttc cttccagtga
<210> 64
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1278-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
<400> 64
                                                                    20
tegectacte tetteteaaa
<210> 65
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-1288-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 65
                                                                    20
cctctgatac tcgcctactc
<210>.66
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1302-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 66
                                                                    20
gacatcactc ccatcctctg
<210> 67
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
```

<223> AS-II-1335-20 antisense oligonucleotides

```
complementary to human ribonucleotide reductase R2
      mRNA
<400> 67
                                                                   20
gcatccaagg taaaagaatt
<210> 68
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1338-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 68
                                                                   20
tcagcatcca aggtaaaaga
<210> 69
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-1342-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 69
                                                                    20
gaagtcagca tccaaggtaa
<210> 70
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1345-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
 <400> 70.
                                                                    20
ttagaagtca gcatccaagg
 <210> 71
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> AS-II-1362-20 antisense oligonucleotides
```

	complementary to human ribonucleotide reductase R2 mRNA	
<400>	71	
gcacat	cttc agttcattta	20
<210>		
<211>		
<212>	•	
<213>	Artificial Sequence	
<220>	The same of the sa	
<223>	AS-II-1364-20 antisense oligonucleotides	
	complementary to human ribonucleotide reductase R2 mRNA	
<400>	72	
gggcad	eatct teagtteatt	20
<210>		
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
<223>	AS-II-1381-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2	
	mRNA	
<400>	73	
aaaaat	cage caagtaaggg	20
<210>	74	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	AS-II-1390-20 antisense oligonucleotides	
	complementary to human ribonucleotide reductase R2 mRNA	
<400>	74	
atgga	aaaaa aaaatcagcc	20
<210>	75	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	AS-II-1438-20 antisense oligonucleotides	

complementary to human ribonucleotide reductase R2 mRNA <400> 75 20. ttcatggtgt ggctagttgg <210> 76 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-1499-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 76 20 aggactggtt gtgaggtagc <210> 77 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-1517-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 77 20 ccagcactat aaacagacag <210> 78 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-1538-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 78 · 20 ttctggcaaa aggtgatact <210> 79 <211> 20 <212> DNA <213> Artificial Sequence · <220>

<223> AS-II-1560-20 antisensé oligonucleotides

```
complementary to human ribonucleotide reductase R2
     mRNA
<400>.79
                                                                    20
gtaagtcaca gccagccagg
<210> 80
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1581-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
<400> 80
                                                                    20
actgccattg tcactgctat
<210> 81
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-1659-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 81
                                                                    20
tggctgtgct ggttaaagga
<210> 82
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
 <223> AS-II-1666-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
       mRNA
 <400> 82
                                                                    20
 ttttaactgg ctgtgctggt
 <210> 83
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <223> AS-II-1700-20 antisense oligonucleotides
```

```
complementary to human ribonucleotide reductase R2
     mRNA
<400> 83
                                                                   20
attaaaatct gcgttgaagc
<210> 84
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1768-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
<400> 84
                                                                    20
tategeegee gtgagtacaa
<210> 85
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1773-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 85
                                                                    20
gctattatcg ccgccgtgag
<210> 86
<211> 12
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-1775-12 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 86
                                                                    12
ategeegeeg tg
<210> 87
<211> 20
<212> DNA
<213 > Artificial Sequence
<223> AS-II-1790-20 antisense oligonucleotides
```

```
complementary to human ribonucleotide reductase R2
     mRNA
<400> 87
                                                                   20
gaaaccaaat aaatcaagct
<210> 88
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1819-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 88
                                                                   20
ttagtggtca ggagaatgta
<210> 89
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1976-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 89
                                                                 . 20
tggcaccaac tgactaatat
<210> 90
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-1989-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
<400> 90
                                                                   20
cctgtcttct atctggcacc
<210> 91
<211> 20
<212> DNA
<213> Artificial Sequence
 <223> AS-II-2009-20 antisense oligonucleotides
```

```
complementary to human ribonucleotide reductase R2
      mRNA
<400> 91
gccacaggat aaaaacacaa
                                                                    20
<210> 92
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-2026-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 92
cccaggacac tacacaagcc
                                                                  . 20
<210> 93
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-2044-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
<400> 93
                                                                    20
tcagagggg cagagaatcc
<210> 94
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-2067-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 94
                                                                    20
teetttatee cacaacacte
<210> 95
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-2083-20 antisense oligonucleotides
```

complementary to human ribonucleotide reductase R2

```
mRNA
<400> 95
                                                                   20
ccttgccctg agagattcct
<210> 96
<211> 20
<212> DNA
<213> Artificial Sequence
<223> Partially Phosphorothioated AS-II-2083-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
<400> 96
                                                                    20
ccttgccctg agagattcct
<210> 97
<211> 20
<212> DNA
<213> Artificial Sequence
<223> AS-II-2128-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
<400> 97
                                                                    20
ggeccagatc acccctaaat
<210> 98
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> AS-II-2151-20 antisense oligonucleotides
      complementary to human ribonucleotide reductase R2
      mRNA
 <400> 98
                                                                    20
aaacggcttc tcacacatat
 <210> 99
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> AS-II-2164-20 antisense oligonucleotides
```

complementary to human ribonucleotide reductase R2 mRNA <400> 99 20 gagaaataaa atgaaacggc <210> 100 <211> 20 <212> DNA <213> Artificial Sequence <223> AS-II-2182-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 100 20 cgttgaggaa aatacagtga <210> 101 <211> 20 <212> DNA <213> Artificial Sequence <223> AS-II-2229A-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 101 20 gctcccacat atgaaaactc <210> 102 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> AS-II-2372-20 antisense oligonucleotides complementary to human ribonucleotide reductase R2 mRNA <400> 102 20 cacacaacct acttacacca <210> 103 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> Antisense oligonucleotides complementary to human

ribonucleotide reductase R2 mRNA

```
<400> 103
                                                                20
tectggaaga tecteetege
<210> 104
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Antisense oligonucleotides complementary to human
     ribonucleotide reductase R2 mRNA
<400> 104
                                                                20
teccacatat gagaaaacte
<210> 105
<211> 2500
<212> DNA
<213> Homo sapiens
<220>
<221> mRNA
<222> (1) ... (2500)
<223> ribonucleotide reductase R2 mRNA
<400> 105
cccaggcgca gccaatggga agggtcggag gcatggcaca gccaatggga agggccgggg 60
gtgaggggte geeegtgeac cetgteecag cegteetgte etggetgete getetgette 180
getgegeete cactatgete teceteegtg tecegetege geceateacg gaccegeage 24.0
agetgeaget etegeegetg aaggggetea gettggtega caaggagaac aegeegeegg 300
ccctgagcgg gacccgcgtc ctggccagca agaccgcgag gaggatettc caggagccca 360
cggagccgaa aactaaagca gctgcccccg gcgtggagga tgagccgctg ctgagagaaa 420
accecegecy ctttgtcatc ttccccatcg agtaccatga tatctggcag atgtataaga 480
aggcagagge tteettttgg accgccgagg aggttgacct etccaaggac attcagcact 540
gggaateeet gaaaceegag gagagatatt ttatateeea tgttetgget ttetttgeag 600
caagegatgg catagtaaat gaaaacttgg tggagegatt tagecaagaa gttcagatta 660
cagaagcccg ctgtttctat ggcttccaaa ttgccatgga aaacatacat tctgaaatgt 720
atagtettet tattgacact tacataaaag ateccaaaga aagggaattt etetteaatg 780
ccattgaaac gatgccttgt gtcaagaaga aggcagactg ggccttgcgc tggattgggg 840
acaaagaggc tacctatggt gaacgtgttg tagcctttgc tgcagtggaa ggcattttct 900
ttteeggtte ttttgegteg atattetgge teaagaaacg aggaetgatg cetggeetea 960
cattttctaa tgaacttatt agcagagatg agggtttaca ctgtgatttt gcttgcctga 1020
tgttcaaaca cctggtacac aaaccatcgg aggagagat aagagaaata attatcaatg 1080
ctgttcggat agaacaggag ttcctcactg aggccttgcc tgtgaagetc attgggatga 1140
attgcactct aatgaagcaa tacattgagt ttgtggcaga cagacttatg ctggaactgg 1200
gttttagcaa ggttttcaga gtagagaacc catttgactt tatggagaat atttcactgg 1260
aaggaaagac taacttottt gagaagagag taggegagta teagaggatg ggagtgatgt 1320
 caagtocaac agagaattot tttaccttgg atgotgactt ctaaatgaac tgaagatgtg 1380
 ecettacttg getgattttt tttttccate teataagaaa aateagetga agtgttacca 1440
```

actagecaca	ccatgaattg	tccgtaatgt	tcattaacag	catctttaaa		
tacctcacaa	ccagtcctgt	ctatttatag	tgctggtagt	atcacctttt	gccagaaggc	1560
ctaactaact	gtgacttacc	atagcagtga	caatggcagt	cttggcttta	aagtgagggg	1620
toaccettta	gtgagcttag	cacagegga	ttaaacagtc	ctttaaccag	cacagccagt	1680
tassanator	agcctcactg	cttcaacqca	gattttaatg	tttacttaaa	tataaacctg	1740
gractttaca	aacaaataaa	cattotttto	tactcacqqc	ggcgataata	gcttgattta	1800
tttaatttat	acaccaaata	catteteetg	accactaato	ggagccaatt	cacaattcac	1860
taagteett	aagtaagtta	aacttotota	gactaagcat	gtaattttta	agttttattt	1920
taagugacta	aaatatttgt	taaccaactt	taaagtcagt	cctgtgtata	cctagatatt	1980
taatgaatta	tgccagatag	aaccaactt	gtgttttat	cetataactt	gtgtagtgtc	2040
agccagttgg	ctgccccctc	tenetagget	attataaast	asaggaatet	ct.caggggaa	2100
ctgggattet	aagttaaatc	rgagragagr	taggggat	ctaggacttc	atatgtgtga	2160
ggagcttctt	aagttaaatc	accagaaacc	tttootooo	atataattaa	tracaaaaaa	2220
gaagccgttt	cattttattt	ctcactgtat	ceetcettaat	gtttggttga	aagtcatcct	2280
ttcttgaaga	gttttcatat	grgggagera	aggragiaci	gradaartee	actacacacta	2340
taaacaaaat	gatccaccta	agatettgee	cctgttaagt	ggtgaaatta	actagaggeg	2400
gttcctacaa	gttgttcatt	ctagttttgt	ttggtgtaag	taggttgtgt	gagetaatee	2450
atttatattt	actatgtctg	ttaaatcaga	aattttttat	tatctatgtt	cttctagatt	2500
ttacctgtag	ttcataaaaa	aaaaaaaaaa	aaaaaaaaa			2500

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:
☐ BLACK BORDERS
☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
☐ FADED TEXT OR DRAWING
☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
☐ SKEWED/SLANTED IMAGES
☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
☐ GRAY SCALE DOCUMENTS
LINES OR MARKS ON ORIGINAL DOCUMENT
TREFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

IMAGES ARE BEST AVAILABLE COPY.

OTHER:

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.